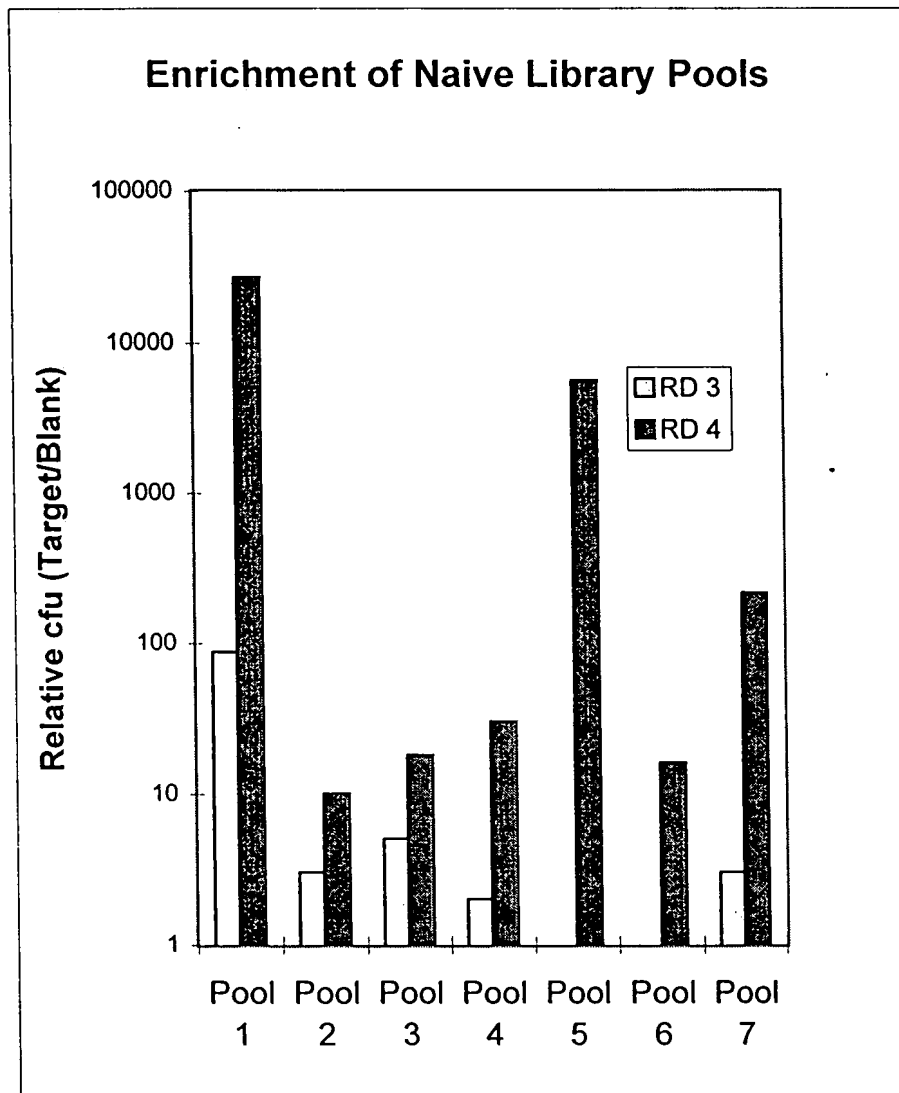


	230	240	250	260	270
humIgG1	PAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYV				
humIgG2	PAP-PVAGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVQFNWYV				
humIgG3	PAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVQFKWYV				
humIgG4	PAPEFLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQFNWYV				
	****			*	* *
	280	290	300	310	320
humIgG1	DGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALP				
humIgG2	DGVEVHNAKTKPREEQFNSTFRVVSVLTVVHQDWLNGKEYKCKVSNKGLP				
humIgG3	DGVEVHNAKTKPREEQFNSTFRVVSVLTVLHQDWLNGKEYKCKVSNKALP				
humIgG4	DGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLP				
			*	*	*
	330	340	350	360	370
humIgG1	APIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAV				
	D L				
humIgG2	APIEKTISKTKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAV				
humIgG3	APIEKTISKTKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAV				
humIgG4	SSIEKTISKAKGQPREPQVYTLPPSQEEMTKNQVSLTCLVKGFYPSDIAV				
	**	*		*	
	380	390	400	410	420
humIgG1	EWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMH				
humIgG2	EWESNGQPENNYKTTTPMLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMH				
humIgG3	EWESSGQPENNYNTTPMLDSDGSFFLYSKLTVDKSRWQQGNIFSCSVMH				
humIgG4	EWESNGQPENNYKTTTPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSVMH				
	*	*	*	*	* *
	430	440			
humIgG1	EALHNHYTQKSLSLSPGK				
humIgG2	EALHNHYTQKSLSLSPGK				
humIgG3	EALHNRFTQKSLSLSPGK				
humIgG4	EALHNHYTQKSLSLSLGLK				
	**		*		

Fig. 3

Figure 4



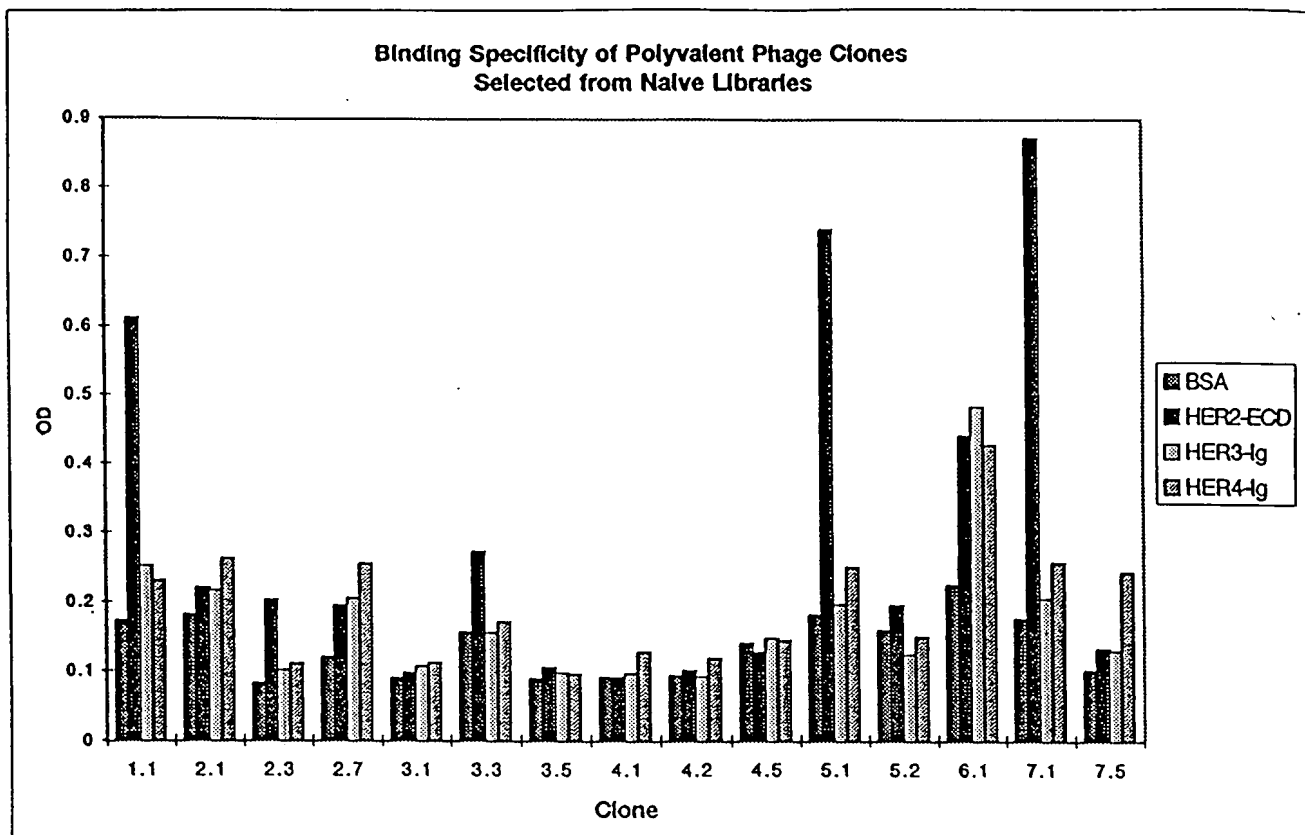


Figure 6.

EC_{50} for 1.1.FI-Zb Binding to Immobilized HER2

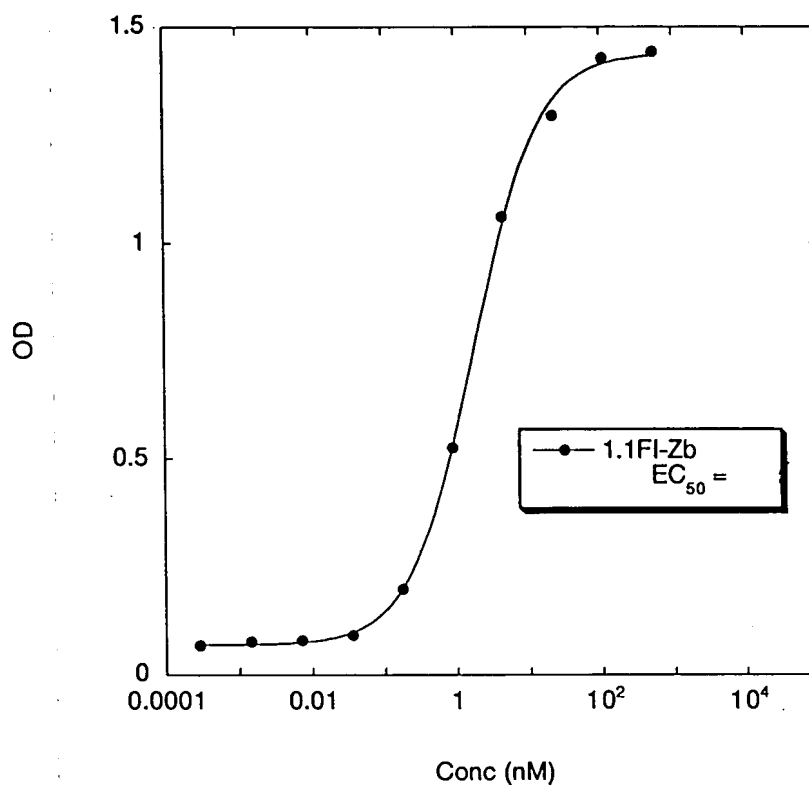


Figure χ

HER2 Competition ELISA

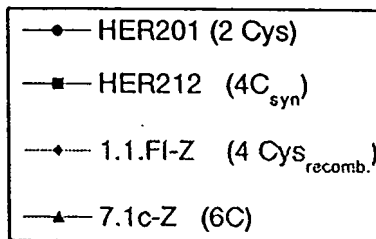
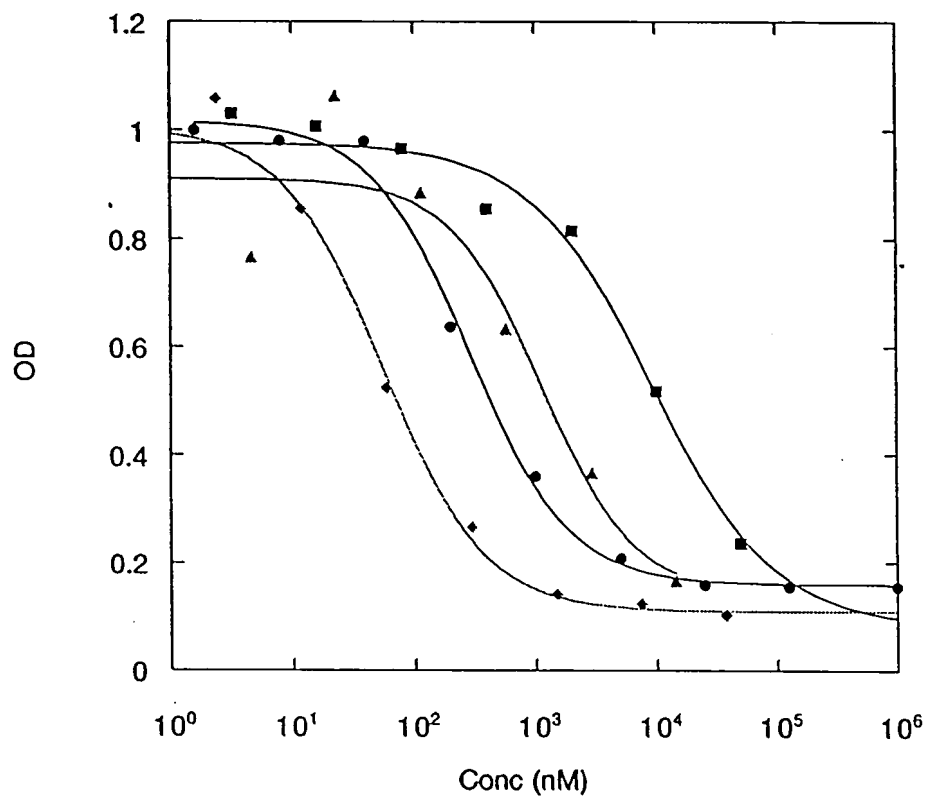
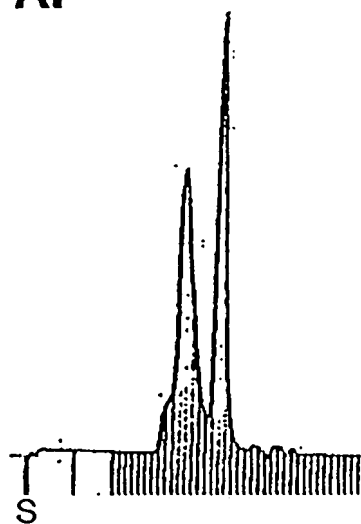


Figure 8

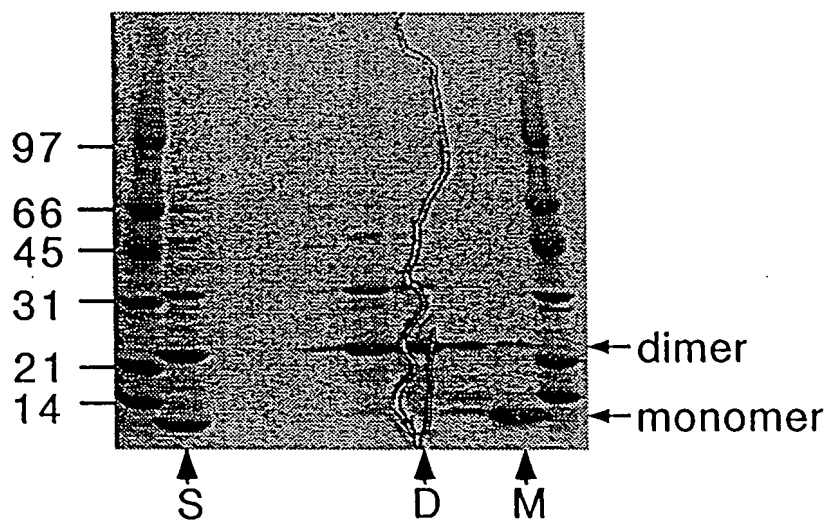
1.1.FI-Z

QVYESWGCIGPGCACLQACL-Z

A.



B.



C.

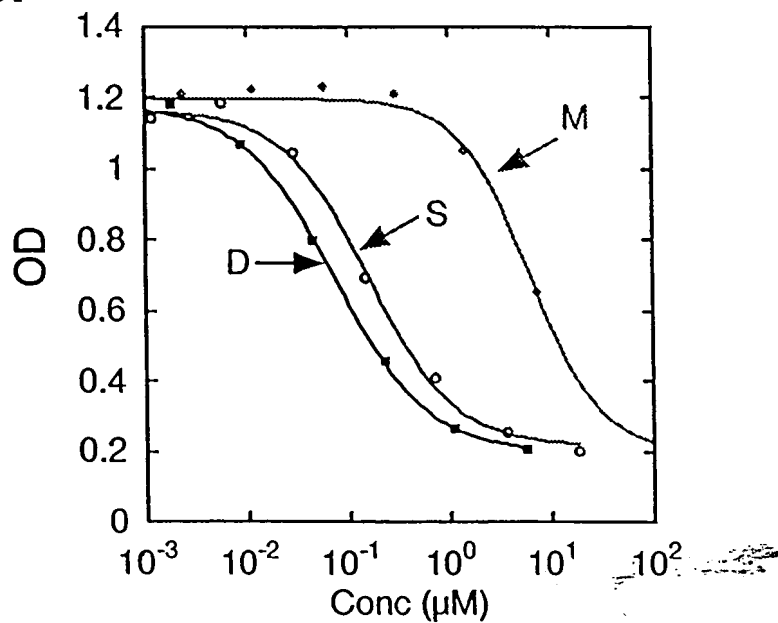


Figure 9

(1.1.FI)₂-Z

QVYESWGCIGPGCACLQACLGGS GGQVYESWGCIGPGCACLQACL-Z

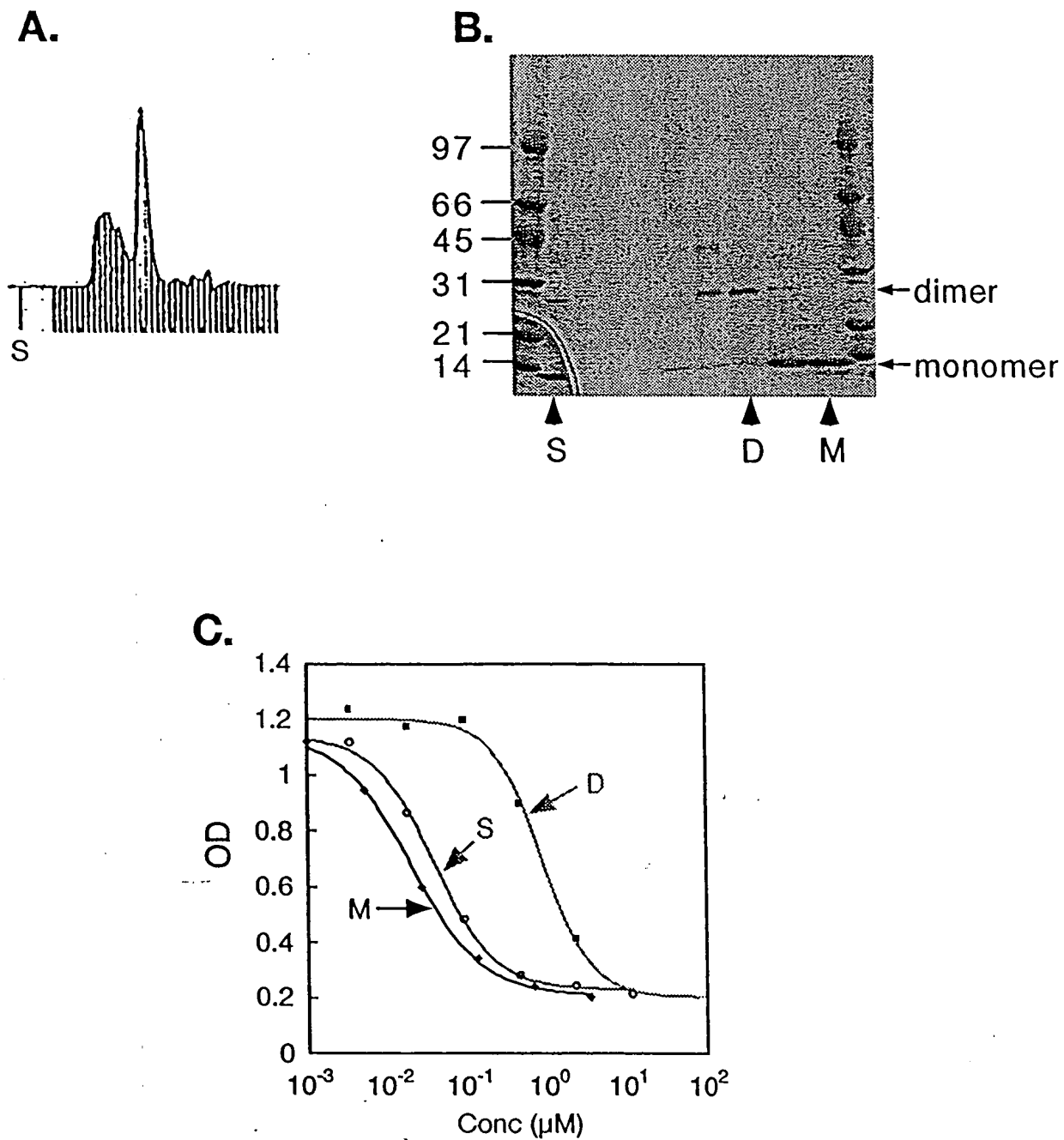
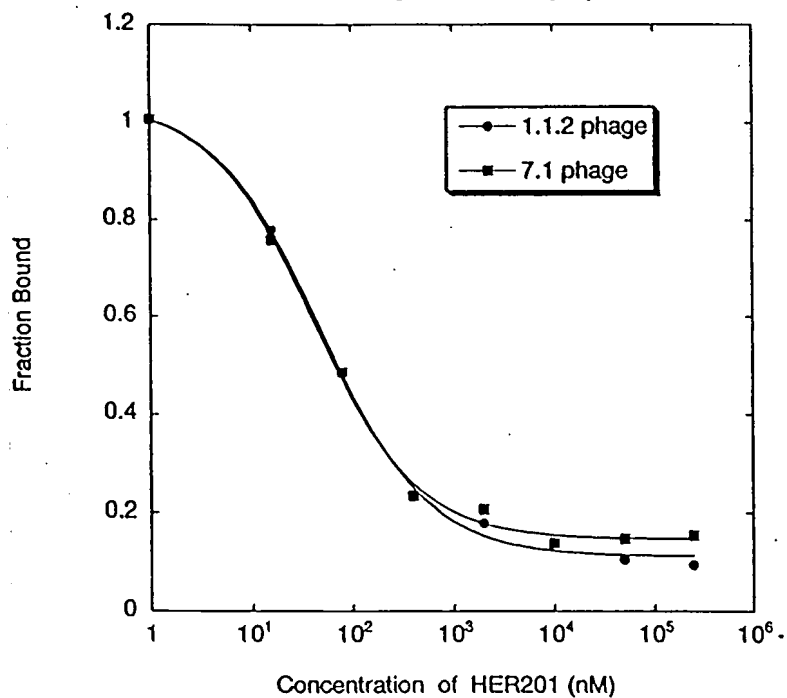
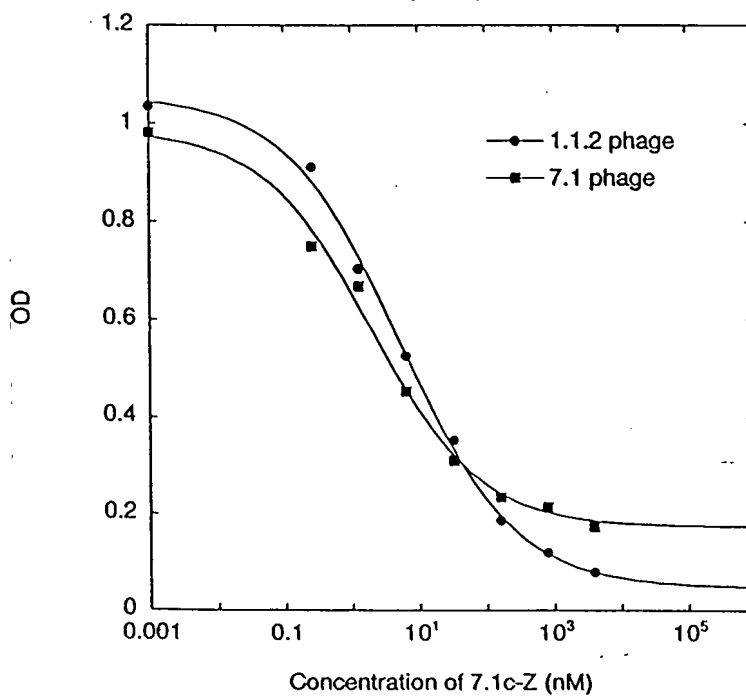


Figure 0

Class 1 and 7 Phage binding to HER2
is blocked by HER201 peptide



Class 1 and 7 Phage binding to HER2
is blocked by Peptide 7.1c-Z



Class 7

Class 1

1. The first step is to identify the problem. This involves understanding the symptoms and the context in which they are occurring.

Figure 18

Inhibition of 1.1.FI-phage Binding to HER2 by HER2 Monoclonal Antibodies

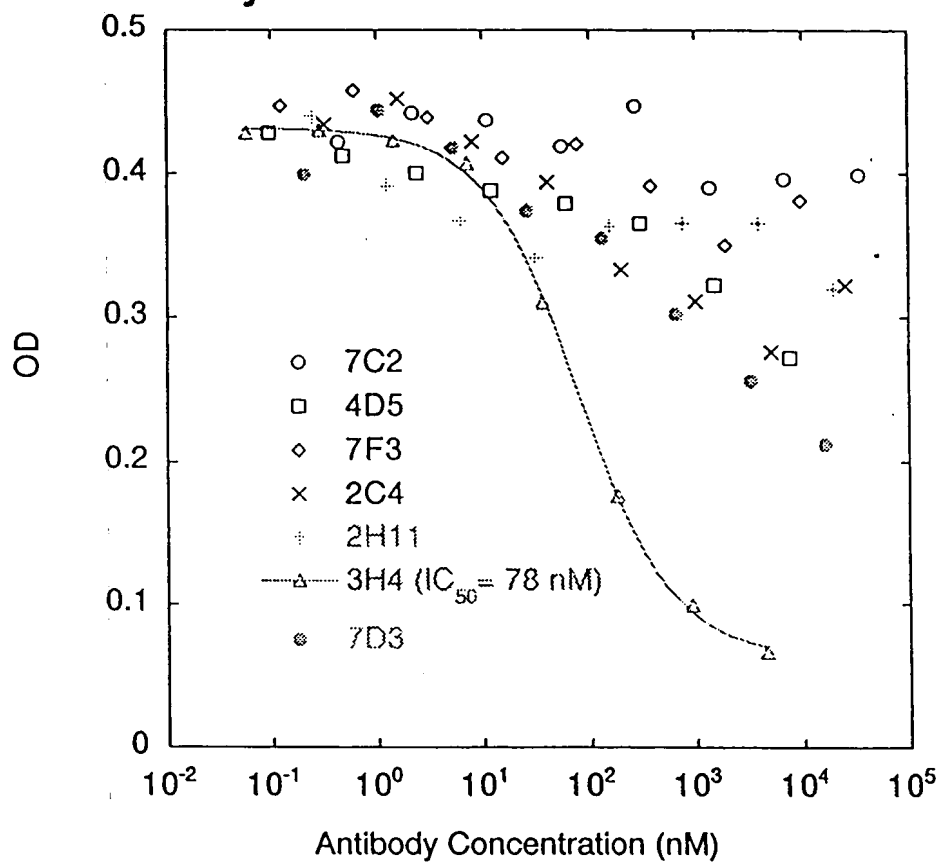


Figure 13

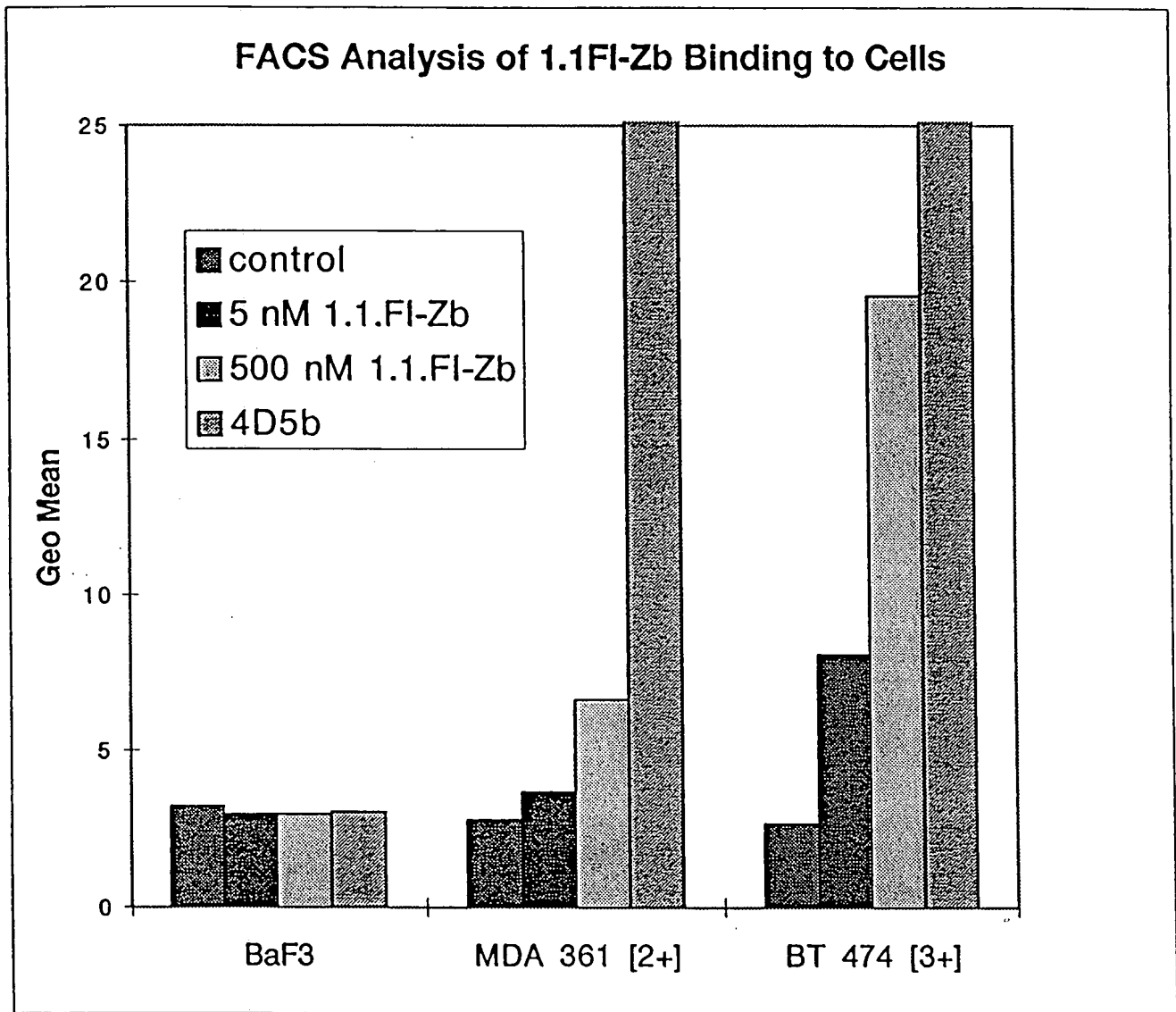
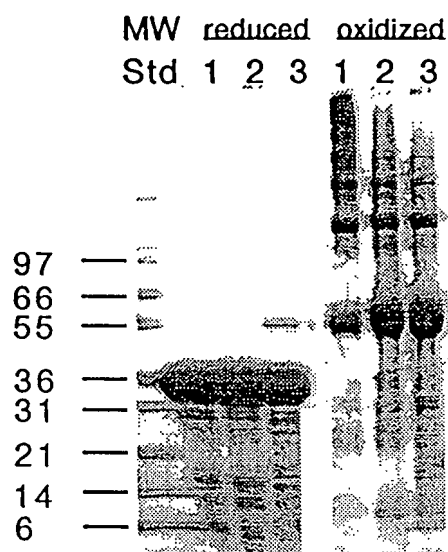


Figure 14



1 = Control Fc (no peptide fusion)
 2 = HER2-Fc fusion (1.1 FI-Fc)

clone

Sequence

Pool 1

1.1

Y E V E A W D **C** M G P G **G** A N L F E A H

Library 1.1

1.1.8

1.1.9

1.1.10

1.1.1

1.1.2

1.1.6

1.1.11

1.1.3

1.1.4

1.1.5

1.1.7

Consensus

Y E F **E** G W G **C** I **G P G C** A Y L F E A H

Pool 7

7.1

C S W V L V Q C G G E W W H C C G L G C G L V V N A C

Library 7.1

7.1.1

7.1.9

7.1.6

7.1.5

7.1.3

7.1.4

7.1.2

7.1.7

7.1.8

7.1.11

Consensus

C A W V S V E C G G E W W H C G C P G C G W V V D A C

14

Pool 1

1.1 Y E V E A W D C M G P G C A N L F E A H
consensus Y E F E Q W G C I G P G C A Y L F E A H

Library 4.1.F

1.1.FC	Y E W		G		P A		G F G Y
1.1.FN	R W D		E		E W		V V R K
1.1.FA	Q R N		A		E M		C A W C
1.1.FM	L S P		T		E M		C S W C
1.1.FE	E N W		M		K F		C E P C
1.1.FH	C I D		T		E E		R C K R
1.1.FB	T Q A		R		E C		M S C V
1.1.FF	A P R		V		A C		L R C I
1.1.FI	Q V Y		S		A C		Q A C L
1.1.FK	R T E		Q		R C		L S C L
1.1.FD	F A G		S		E C		I G C L
1.1.FQ	T A R		P		N C		L A C L
1.1.FS	R P H		V		S C		L S C I
1.1.FX	A S H		V		K C		Q A C M
1.1.FY	K L N		E		A C		L Q C W
1.1.FZ	K L N		D		A C		L - C

Library 4.1.N

1.1.NC	E	V	W	G	C	I	G	P	G	C	K	A	L	C	D	W	C
1.1.NB	E	R	W	G	C	I	G	P	G	C	R	M	L	C	E	W	C
1.1.NM	E	V	W	G	C	I	G	P	G	C	D	A	L	C	N	W	C
1.1.NQ	E	V	W	G	C	I	G	P	G	C	S	M	L	C	G	W	C
1.1.NA	E	V	W	G	C	I	G	P	G	C	E	C	L	M	N	C	L
1.1.NG	E	G	W	G	C	I	G	P	G	C	E	C	L	L	R	C	L
1.1.NH	E	G	W	G	C	I	G	P	G	C	G	C	L	L	K	C	L
1.1.NE	E	P	W	G	C	I	G	P	G	C	A	C	L	L	G	C	L
1.1.NJ	E	E	W	G	C	I	G	P	G	C	A	C	L	L	N	C	L
1.1.NF	E	Q	W	G	C	I	G	P	G	C	K	C	L	M	G	C	L
1.1.NK	E	Q	W	G	C	I	G	P	G	C	G	C	L	L	R	C	L
1.1.NR	E	A	W	G	C	I	G	P	G	C	G	C	L	M	A	C	L

Library 1.1.C

1.1.CF	N	V	C	F	F	W	G	C	I	G	P	G	C	A	Q	T	C
1.1.CA	H	W	M	F	R	W	G	C	I	G	P	G	C	G	F	I	C
1.1.CB	N	W	P	F	G	W	G	C	I	G	P	G	C	K	L	I	C
1.1.CC	F	N	W	F	K	W	G	C	I	G	P	G	C	R	T	L	C
1.1.CD	F	S	G	F	R	W	G	C	I	G	P	G	C	Q	V	L	C
1.1.CE	G	G	W	F	G	W	G	C	I	G	P	G	C	R	Y	L	C
1.1.CG	L	W	F	F	R	W	G	C	I	G	P	G	C	T	-	L	C
1.1.CH	G	I	P	F	G	W	G	C	I	G	P	G	C	E	W	L	C
1.1.CI	W	W	T	F	R	W	G	C	I	G	P	G	C	S	M	L	C
1.1.CJ	-	C	-	F	R	W	G	C	I	G	P	G	C	S	M	L	C
1.1.CL	L	G	W	F	R	W	G	C	I	G	P	G	C	R	A	L	C
1.1.CM	S	P	W	F	G	W	G	C	I	G	P	G	C	R	W	L	C
1.1.CP	R	G	W	F	G	W	G	C	I	G	P	G	C	S	F	L	C

Figure

17

